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LUMINARY Memo #45

To: Distribution
From: D. Eyles
Date: 24 September 1968
Subject: New Landing Initialization

Thanks to changes connected with the implementation of PCR 246, the NASA request for "one-phase" descent guidance, the initialization for landing runs has changed. The following description of initialization required applies to LUMINARY revision 50 and subsequent revisions.

There are now two modes of descent guidance operation: "one-phase" which is new, and "two-phase". All landings run using LUMINARY up to now have been two-phase landings. On the philosophy that the newer system needs the more debugging I would prefer anyone who doesn't otherwise care which mode he uses to run one-phase landings.

Initialization for the two modes follows:

<u>Register</u>	<u>One-Phase</u>	<u>Two-Phase</u>
SWINIT +6		OCT 00400
TENDBRAK	DEC +200 E2 B-17	DEC +20 E2 B-17
TENDAPPR	DEC +10 E2 B-17	DEC +10 E2 B-17
RPCRTIME	* DEC +300 E2 B-17	DEC +5 E2 B-17
RPCRTANG	* OCT 10000	OCT 37777
RBRFG through JBRFG*	same as RAPFG through JAPFG*	no change
RAPFG through JAPFG*	no change	no change

Most of these values will change, especially the ones marked with *'s, but at least the initialization given here will get you running.

Tags which have disappeared in recent revisions are the following:
IGNALG, BRAKQUAD, BRAKLING, APPRQUAD, APPRLING, VERTICAL.